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AUTHOR O'Neal, E. C.; Kirk, Pamela A. Catledge
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ABSTRACT

After a review of the recommendations of national reform reports in the 1980's concerning teacher education programs and legislation enacted and regulatory systems established in Mississippi to facilitate educational reform and ensure the quality of teacher education major courses, this paper describes a study of the American College Test that predicts academic success in college and the National Teacher Examinations (NTE) that measure the knowledge base for teaching and predict academic competency. Focus was on looking at the implications of educational reform and program change on the professional development of physical education majors (PEMs) in Mississippi. Two groups were evaluated: (1) subjects in Group 1, from 1984 to 1988, were transitional and did not participate in all curricular, entry, and exit regulations initiated through legislative mandates and college of education reforms); and (2) subjects in Group 2, since 1988, were PEMs who participated in all college of education reforms and mandates of the state regulatory bodies. Group 1 is the pre-post education reform group. Group 2 is the post-reform group. Group 2 had significantly higher scores on the NTE subtests (general knowledge, communication, and professional knowledge) and the NTE physical education specialty area. Group 2 had higher scores on the ACT subtests (natural sciences, English, mathematics, and social sciences) and the ACT composite score, but none were significant. The comprehensive changes and institutional restructuring of teacher preparation programs for PEMs were effective. (RLC)

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Effects of Educational Reforms on Pre-Post Reform NTE Scores of Physical Education Majors

by

E. C. O'Neal, Mississippi State University
Pamela A. Catledge Kirk, Mississippi State University

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Background

Critics of teacher education have always been plentiful, and the welter of educational reports attests to the fact that there is no consensus as to how best to train teachers. However, the fact that there were some fifty major educational reform reports during the 1980's irrefutably supports the importance of education to the American public. A closer analysis of the most significant reports affords a better understanding of the direction that the impact of these reports has taken.

The first major national report calling for educational reform was published in 1983 by the National Commission on Excellence in Education. This report, **"A Nation at Risk"** consisted of a group of educators and legislators assembled by Terrell Bell, U.S. Secretary of Education. The primary findings and recommendations were directed to content (curriculum), expectations (knowledge, skills, and abilities), time (in the classroom and on homework), and teaching. Johnson, Collins, Dupuis, and Johansen (1991, p. 56) summarized the recommendations relating to teaching into seven parts. One of the recommendations is significantly directional to teacher training institutions in that it specified that education majors meet high educational standards, demonstrate an aptitude for teaching, and demonstrate competence in an academic discipline.

Associated with this recommendation is evaluation of the colleges and universities offering teacher preparation programs based upon how well their graduates meet the aforementioned criteria.

One of the most controversial and significant reports in teacher training was titled, **Tomorrow's Teachers: A Report of the Holmes Group**. Some fifty deans from major research universities proffered numerous general and specific goals for improving teaching training. One of the major recommendations by the Holmes Group was to restructure teacher training, requiring a bachelor's degree in arts and sciences as a prerequisite for a fifth year of study in teacher education. Reed and Bergemann (1992, p. 557) summarized the major recommendations:

1. Development of a 3 tier system of teacher education, granting the professional and the career teacher tenure and the instructor temporary certification.
2. Formation of graduate professional teacher education programs.
3. Collaboration of schools and colleges.
4. Improvement of schools as better work places for teachers.
5. Establish entry standards for the profession.

Another report that received national attention was **A Nation Prepared: Teachers for the 21st Century.** The Carnegie Forum on Education and the Economy Task Force on Teaching as a Profession was assembled in 1985, and consisted of fourteen members from business, education, and the political arena. Reed and Bergemann (1992, p. 557) noted that the Carnegie task force contained only one member from higher education, and they also categorized the

teacher preparation recommendations of this report into eight parts:

1. Restructure schools to provide a professional environment for teaching.
2. Create a National Board for Professional Teaching Standards.
3. Retention of licensing authority by the individual states.
4. Abolish undergraduate degrees in education, and develop a new professional curriculum in graduate schools of education.
5. Evaluate undergraduate programs in arts and sciences to ensure quality preparation of the undergraduate students who will pursue teaching.
6. Ensure that minority youngsters are entering the teaching field.
7. Link salary incentives to school-wide student performance.
8. Increase teacher salaries and career opportunities commensurate with other professions.

Yet another major report, **A Call for Change in Teacher Education**, surfaced in 1985 that heralded recommendations assimilated by a seventeen member commission which included college presidents, chancellors, deans, representatives from the professional organizations of teachers, state superintendents, a governor, legislators, and a representative from the National School Boards Association. This report, which directly addressed programs related to teacher education, was written by the professional organization of colleges of education, the Association of American Colleges of Teacher Education (AACTE). Reed and Bergemann (1992, p. 556) summarized the report findings as they related to five domains:

1. Integration of liberal studies with content and skills of professional education, not delete four year education degrees.

2. Completion of a year's internship as a provisional teacher with compensation following culmination of a teacher preparation program.

3. Encouragement by individual states to initiate structural changes, not just course modifications in programs of teacher education.

4. Continuance of state certification of teachers, but with hope that voluntary national accreditation of teacher education programs will be desired.

5. Support for continued funding and development of teacher education research through the federal and state government.

Three major reform reports were produced by the Southern Regional Education Board (SREB), **The Need for Quality** (1981), **Meeting the Need for Quality** (1983), and **Higher Education and the Schools** (1985). The suggestions as identified by Reed and Bergemann (1992, pp. 76-77) included in these reports were: (a) revision of four year undergraduate programs, to include higher standards; (b) development of collaborative programs between schools, universities and states that support and monitor teachers during their induction year; (c) recognition of alternate certification routes for liberal arts graduates; (d) establishment of fifth year teacher preparation programs; (e) diversification of teacher certification to distinguish provisional teachers from career ladder teachers.

The review of the recommendations of the aforementioned national reform reports of the 1980's that were pertinent to teacher education irrevocably indicated certain trends that

supported the call for continued reassessment in the way we prepare better teachers. In summary, the underlying themes prevalent in the earlier reports seem to suggest the following changes in teacher education programs of the future: (a) raise standards, and entry and exit testing; (b) evolvement of tier system into the teaching profession; (c) increase in field-based experiences; (d) demand for more rigorous teacher certification standards that generally include an exit examination such as the National Teachers Exam (NTE); (e) restructure the current model for preparation of teacher education majors either within the current four year structure, or requirement of a liberal arts bachelor's degree with a fifth year in teacher education; (f) increase collaboration efforts between state department's of education, schools, and teacher preparation institutions.

Mississippi, in 1982, like virtually every other state in the union, enacted legislation that was consonant with the proliferation of reports on educational reform. Recently, Land (1992) identified former governor, William Winter as the primary impetus to the landmark Education Reform Act of 1982 that thrust Mississippi into the forefront of the emerging educational reform movement. Futrell (1989, p. 43) reported that between 1983 and 1985 state legislatures mandated some 700 statues designating the what, how, when, and by whom of teaching. This top-down legacy of the earlier reform years continued to shape the direction of the Mississippi reform movement, but was tempered by the call in later reports (Holmes Group, the Carnegie Task Force on Teaching as a Profession,

the National Governors' Association, the Education Commission of the States, and the Association for Supervision and Curriculum Development) for greater teacher involvement in decision making relative to school improvement.

Several legislative actions have impacted the boundaries with which colleges of education later configured their teacher education programs, and of more consequence, directed its utilization of an assessment instrument, the 1986 Mississippi Teacher Assessment Instruments (MTAI). House Bill 4, of the Education Reform Act of 1982 empowered the Mississippi State Department of Education to establish rules and criteria for provisional certification of the beginning teacher. Additionally, Sargent (1989) noted that this legislative provision resulted in the MTAI being used for systematic assessment of all teachers for merit pay consideration. Sargent (1989) surmised Bob Cheeseman's thoughts relative to the impact of a third mandate. Cheeseman stated that effective July 1, 1986, the state of Mississippi would establish a teacher-education/certification process based upon four elements (a) entry into the teacher education program, (b) entry into provisional certification, (c) entry into standard certification, and (d) continuing certification (Sargent, 1989). As a result the MTAI, with its three evaluation instruments, and 42 researched-based teaching behaviors has permeated all levels of the teacher training programs in Mississippi's institutions of higher learning. In addition to the aforementioned legislative mandates, other regulatory systems were introduced to ensure the quality of

teacher education majors. The National Teacher Examinations (NTE), general knowledge, communication, professional knowledge, and specialty areas were administered to preservice teachers as a part of their entry/exit/ and teacher certification process. In 1984, the authors' college of education program was revised incorporating the regulatory mandates and redesigning the coursework with emphasis on a researched based knowledge base about teaching and the needs of learners. The curricula that emerged after some many hours of collaboration, study, discussion, and evaluation by The Steering Committee suggested major restructuring of the requirements for teacher preparation. The theme for this professional education model is "The Actualizing Professional Teacher". As with any major change it is necessary to continue to evaluate both the process and the products of this change and to determine revisions, deletions and modification of program design and content.

Given the historical background, the authors of this study began to scrutinize available quantitative measures the American College Test (ACT) which is predictive of academic success in college and the National Teacher Examinations (NTE) a measure of following: (a) the professional knowledge test, and the specialty area which purportedly measures the knowledge base for teaching; (b) the general knowledge portion and the communication subtests, which again are predictive of academic competency. Two groups were identified for study in this research. Group one from 1984-1988 which consisted of subjects that were transitional, in the sense that this sample did not participate in all the curricular,

entry, and exit regulations that were initiated through legislative mandates and college of education reforms. Group two, since 1988, consisted of physical education majors who have been active participants in all the college of education reforms, and mandates of the regulatory bodies of the state.

Results

In discussing the results of this study, Group I refers to the pre-post education reform group (1984-1988), and Group II refers to the post-reform group (after 1988). The post-reform group had significantly higher scores on all three sub-tests and specialty area of the NTE. The results of the comparison are shown in Table I.

TABLE I

Comparison of NTE Scores of Pre-Post Education Reforms Group I and Post Reform Group II.

	Variable	N	Mean	S.D.	t value	prob.
General Knowledge	Group I	120	650.81	8.41	1.94	.05
	Group II	72	653.38	9.56		
Communication Skills	Group I	120	651.61	9.35	2.91	.003
	Group II	74	655.39	7.70		
Professional Knowledge	Group I	120	648.71	9.90	2.88	.005
	Group II	65	652.63	8.19		
Specialty	Group I	130	569.23	5.15	2.31	.02
	Group II	69	587.82	6.19		

This statistical comparison was made to compare the abilities of the entering students as measured by the ACT. The post reform group had higher scores on all sub tests and the composite score of the ACT, but none were significant. The results of this comparison are shown in Table II.

TABLE II

Comparison of ACT Scores of Pre-post Reform and Post Reform Physical Education Majors.

	Variable	N	Mean	S.D.	t value	prob.
Social Science	Group I	55	14.96	5.51	1.11	.13
	Group II	58	16.10	5.40		
Science	Group I	55	18.64	4.73	1.11	.13
	Group II	58	19.67	5.16		
English	Group I	55	16.02	4.29	1.41	.07
	Group II	59	17.20	4.05		
Math	Group I	55	15.40	6.10	1.23	.11
	Group II	59	16.76	5.71		
Composite	Group I	86	16.63	4.07	1.32	.08
	Group II	74	17.82	3.9		

Summary

With the major restructuring of the teacher education programs, the authors felt a need not only to be a part of the systematic evaluation of the process of our professional education model, but

to look at the implications that reform, and program change has had on the professional development of physical education majors. Group two, the post reform group, had higher scores on the ACT subtests (natural sciences, English, mathematics, and social sciences) and the composite score, but were not significant. More importantly the post reform group had higher scores that were significant on all three subtests (general knowledge, communication, and professional knowledge) and the physical education specialty area. This finding is meaningful, but it should be noted that these conclusions do not concur with the results of Turner and Shelton's (1991) reform study regarding elementary majors in the same restructured curriculum. Turner and Shelton (1991) concluded that any academic change in elementary majors was the result of higher entrance requirements, not in curricular reform strategies, specifically designed to effect change.

Examination of the results of this study seemingly supports the effectiveness of these comprehensive changes, mandated, regulatory, and institutional restructuring of teacher preparation programs, for physical education majors. Reforms in the college of education, and other variables, such as elevated standards for entry into teacher education (higher entry scores on the communication and general knowledge portions of the NTE, a 2.5 quality point requirement on general education core subjects, a C or better on: six hours of English, three hours of math above college algebra, and three hours of speech) have certainly contributed to the outcome of the product, the physical education professional.

Nonetheless, exit requirements were raised and the results of this study noted that the model was responsive. The scores in the professional knowledge portion and the physical education specialty area have reflected that the curricular changes have been conducive to facilitate professional growth and perhaps a degree of educational renewal!

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